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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/035,477 | 10/25/2001 | Stephane Frederick Jacob | TAL/2706.999 | 3739 |

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EXAMINER

ZEADE, BERTRAND

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2875

DATE MAILED: 02/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-----------------|--------------|-----------|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/035,477 | JACOB ET AL. | |
| | Examiner | Art Unit | <i>AW</i> |
| | Bertrand Zeade | 2875 | |

-- *Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07/032003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-14, 16-26 is/are rejected.
- 7) ☒ Claim(s) 8 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's arguments with respect to claims 1-30 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 U.S. C. § 902

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371 (c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-2 are rejected under 35 U.S.C. 102(e) as being anticipated by Roller (U.S.6,414,801).

Roller ('801) discloses a catadioptric light emitting diode assembly having:

Regarding claim 1, a inherently sealed housing (see fig. 2) having a downwardly-directed light emitting aperture (60); a heat sink (30/70) fixed within and spaced from an internal wall or ridge (31) of the housing to define a cable

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raceway (see fig. 6) between the heat sink (30/70) and the housing; a plurality of light-emitting diodes (81) mounted within the housing on the heat sink (30/70), each one of the light-emitting diodes (,41/81) having a lens (101) for directing light emitted by one of the light-emitting diodes (10) through the aperture or opening (102) into the clean room; and, a power supply (col. 4, lines 50-56) for applying drive current to the light emitting diodes (10).

Regarding claim 2, each one of the light-emitting diodes (10) further having a reflector (103) for directing light emitted by one of the light-emitting diodes (10) through the aperture (102) into the clean room.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3-7, 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roller ('801) in view of Saif et al. (6583935).

Roller ('801) discloses the claimed invention except for anti -reflective coating.

Regarding claim 7, Roller ('801) discloses for each one of the lenses (103) and an adjacent one of reflectors (103), a refractive index matching compound applied between one of the lenses (col. 8, lines 55-59) and the adjacent one of the reflectors (101) and (col. 8, lines 55-59).

Saif ('935) discloses a low reflection high transmission, touch-panel membrane having:

Regarding claim 3 and 4, an anti-reflective coating (see abstract).

Regarding claim 12, a holographic diffusion lens for uniformly distributing through the aperture the light emitted by the light-emitting diodes (10).

Regarding claim 13, the holographic diffusion lens further comprises a structured surface prismatic film.

Regarding claim 14, a variable transmissivity filter or lens (101) for uniformly distributing through the aperture said light emitted by said light-emitting diodes.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the catadioptric LED assembly of Roller ('801) with the anti-reflective coating taught by Saif ('935) in order to provide an illumination device having anti-reflective thin film to achieve a best result in restoring the color, brightness and the contrast to the display by modifying the front and /or back side of the device. Further, the use of anti-reflective thin film scatters some of the ambient light, resulting in less reflection seen by the viewer.

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5. Claims 5-6, 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roller ('801) in view of Saif ('935) as applied to claims 1 and 2 above, and further in view of O'Neill et al (6024455).

Roller ('801) in view of Saif ('935) disclose the claimed invention except for a high refractive index.

However, O'Neill ('455) discloses a reflective article with concealed retroreflective pattern having:

Regarding claim 5, the reflectors are formed of a high refractive index material (col. 13, lines 47-57).

Regarding claim 6, Roller discloses a high refractive index material is polycarbonate (col. 5, lines 54-57) well known to those skilled in the art for high refraction index.

Regarding claim 9, the reflectors are formed of spectrally selective filter material (col. 5, lines 20-34).

Regarding claim 10, the spectrally selective filter material is a deep dyed polyester (col. 26, example 2 article).

Regarding claim 11, the spectrally selective filter material is a spectrally selective thin film filter material (col. 25, lines 62-67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the catadioptric LED assembly of Roller ('801) in view of Saif ('935) with the high index refractive taught by O'Neill ('455), in order to provide an illumination device having a high refractive multiplayer film such like polymers to achieve a best result in restoring a direction. Among the

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polymers, the required polymer should be chosen so that in the finished film, its refractive index, in at least one direction, differs significantly from the index of refraction of the first polymer in the same direction, because polymeric materials are typically dispersive, that is, the refractive indices vary with wavelength, these conditions have to be considered in terms of a particular spectral bandwidth of interest, to give the brightness and the contrast of the illumination.

6. Claims 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Roller ('801) in view of Crinion (U.S. 5,205,632).

Roller ('801) discloses the claimed invention except for a magnetically attachable to the room.

Crinion ('632) discloses an undercabinet lamp having:

Regarding claim 16, the housing is removably magnetically attachable to the clean room ceiling (col. 2, lines 38-61).

Regarding claim 17, the housing is removably adhesively attachable or secured to the clean room ceiling (col. 2, lines 53-61).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the catadioptric LED assembly of Roller ('801) with the magnetically attachable of housing to the room disclosed by Crinion ('632) for the benefit and advantage of providing a task light including, a base that is releasably securable to the support surface. The base includes the magnetic

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attachment substrate secured thereto, and the task light secured below an iron base surface commonly steel and maintained thereby the magnetic attachment substrate.

7. Claims 18-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roller ('801) in view of Crinion ('632) as applied to claim 1 above, and further in view of Burnes et al. (5,526,236).

Roller ('801) in view of in view of Crinion ('632) disclose the claimed invention except for DC-DC in-line converter.

Burnes ('236) discloses a lighting device used in an exit sign having:

Regarding claim 18, the power supply further comprises an uninterruptible power supply.

Regarding claim 19, the power supply further comprises an in-line DC-DC converter coupled between a high voltage DC power supply and the fixture (see fig. 6A).

Regarding claim 20, the power supply further comprises an in-line **DC-DC** converter coupled between the uninterruptible power supply and the fixture (see fig. 6A).

Regarding claim 21, the uninterruptible power supply is located at a remote distance from the fixture.

Regarding claim 22, the uninterruptible power supply is located at a remote distance from the fixture (see figs. 6-6A).

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Regarding claim 23, the **DC-DC** in-line converter is located closely proximate to the fixture (see fig. 6A).

Regarding claim 24, the DC-DC in-line converter is located closely proximate to the fixture (see fig. 6A).

Regarding claim 25, the **DC-DC** in-line converter is located closely proximate to the fixture (see fig. 6A).

Regarding claim 26, the power supply further comprises a regulator for regulating the drive current as a function of time (see fig. 6).

Regarding claim 27, a light sensor inherent located in the clean room and electrically connected to the regulator (44), the light sensor producing an output signal representative of light intensity near the light sensor (not shown), and wherein the regulator (44) and further regulates the drive current as a function of the output signal.

Regarding claim 28, a light sensor inherent located in the clean room and electrically connected to the regulator (44), the light sensor producing an output signal having a magnitude representative of light intensity near the light sensor (not shown), and wherein the regulator (44) and further regulates the drive current in inverse proportion to the output signal magnitude.

Regarding claims 29 and 30, a programmable controller or boost regulator circuit (64) electrically connected between the power supply and the LEDs (46), the programmable controller (64) for programmatically regulating the drive current as a function of time.

It would have been obvious to one of having ordinary skill in the art at the time the invention was made to utilize the catadioptric LED assembly of Roller ('801) in view of Crinion ('632) with the **DC-DC** in-line converter disclosed by Burns ('236), for the benefit and advantage to provide a lighting device having a boost regulator circuit including an input voltage coupled to the pin of a DC-DC converter and to one side of an inductor. In operation, the DC passes into the boost regulator circuit at certain point, discharges through the inductor and the LEDs. The light device provides an effective LEDs lighting means within an exit sign, because the exit sign using the LEDs lighting device has the same amount of illumination as found in exit signs or ceiling using traditional incandescent lamps while at the same time greatly reducing power consumption.

Allowable Subject Matter

8. Claims 8, 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior of record neither teaches nor suggests a reflector index matching compound which is an elastomer and the ceiling has an H-Bar configuration and wherein the housing is sized and shaped for snap-fit engagement within the H-Bar configuration.

Contact Information

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bertrand Zeade whose telephone number is 571-272-2387. The examiner can normally be reached on 8:00 AIVI-5:OOPM.

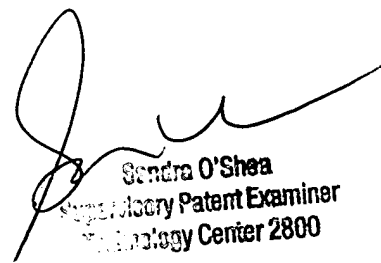
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571-272-2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Bertrand Zeade

Examiner

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Sandra O'Shea
Supervisory Patent Examiner
Technology Center 2800